

Patent Abstracts of Japan

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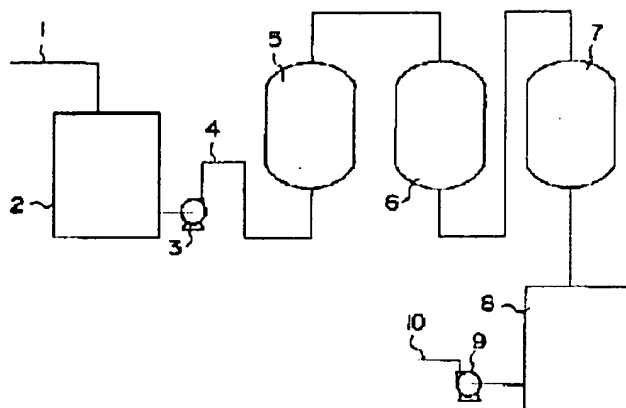
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TITLE : TREATMENT OF DRAINAGE
CONTAINING HYDROGEN PEROXIDE
AND CHROMIUM ION



ABSTRACT : PURPOSE: To recover chromium portion from a drainage effectively and make it possible to recycle a treated water by passing drainage containing hydrogen peroxide and chromium ion through a hydrogen peroxide decomposition tower filled with a catalyst, then passing the drainage in which hydrogen peroxide is decomposed through an ion exchange resin tower, and thereby removing chromium ion.

CONSTITUTION: Drained water containing hydrogen peroxide and chromium ion generated in a decoloring step is collected into a raw water tank 2 through effluent piping 1, and then is circulated to a hydrogen peroxide decomposition tower 5 filled with granular manganese oxide (IV) using a raw water pump 3. Hydrogen peroxide contained in the drainage is decomposed by a catalytic action of granular manganese oxide, and the concentration of hydrogen peroxide is made to be 100mg/l or less. Next, the drainage is circulated flowing down in ion-exchange resin towers 6, 7, and in this process, chromium ion and other ions are adsorbed and removed. After that, the treated water is collected into a treated water tank 8, then is sent to an original process, using a treated water pump 9 and feed piping 10, and is recycled.

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